

IN THE SPECIFICATION

Please amend the paragraph beginning at page 15, line 23 and ending on page 16, line 5, as follows:

The OFA epitopes of the present invention that specifically stimulate Tc cells and optionally, the OFA epitopes that specifically stimulate Th cells may be administered to cancer patients, preferably ~~in~~ together in the form of a composition. Thus, the present invention further provides a method of treating cancer in a mammal, by administering to a cancer patient at least one and preferably a plurality of oncofetal antigen (OFA) epitopes that specifically stimulate T cytotoxic lymphocytes in the mammal, and optionally, one and preferably a plurality of oncofetal antigen (OFA) epitopes that specifically stimulate T helper lymphocytes in the mammal. A related aspect of the invention is directed to a method of potentiating a T cell-mediated immune response in a mammalian cancer patient comprising administering to the cancer patient an immunogenic amount of a composition as described herein.

Please amend the paragraph beginning at page 47, line 28 and ending on page 48, line 8, as follows:

In preferred embodiments, the vaccine composition of the present invention contains a plurality (i.e., two or more) lipopeptides, each of which contains a distinct Tc-inducing OFA epitope. In other preferred embodiments, the vaccine also contains one or more lipopeptides that contain a Th-inducing OFA epitope. The sequence of the epitopes will have to be confirmed based on the HLA MHC proteins the patient expresses. Administration, e.g., intradermal or subcutaneous injection of this mixture of mono-palmitoyl-conjugated OFA/iLRP peptides will lead to uptake by and maturation of dendritic cells which then can present those

peptides to Tc and Th cells in lymph nodes draining the site(s) of immunization. Thus, dendritic cells will be targeted *in vivo* by the lipopeptides.

Please amend the paragraph beginning at page 70, line 18 and ending on page 70, line 20, as follows:

Using the same methodology, two additional OFA epitopes that specifically stimulate Tc cells were identified, mainly OFA (58-66) (e.g., LLLAARAIV) and OFA (60-68) (e.g., LAARAIVAI).

Please amend the paragraph beginning at page 72, line 26 and ending on page 73, line 29, as follows:

Second, the counted PBML is diluted to 5×10^6 viable cells/ml in RPMI-1640 medium and then the cell suspension is split into two aliquots. (a) One aliquot of cells serves as the source of antigen-presenting cells in the proliferation assay. Deplete this aliquot of T cells by negative selection on anti-CD3 monoclonal antibody coated Petri plates using the method described in Wysocki *et al.*, *Proc. Natl. Acad. Sci. (USA)* 75:2844 (1978), except that anti-CD3 antibody is used and that the anti-CD3 antibody is added and binds to the plates on the day of the cell separation. See Boyum, *Scand. J. Clin. Lab. Invest.* 21:97:S77 (1968). After incubation and removal of cells not adhering to anti-CD3-coated plates, the non-adherent cells (non-T cells) are washed by centrifugation in RPMI-1640 medium by centrifugation and X-irradiated at 3000 R to inhibit their ability to proliferate. After X-irradiation, they are counted for viability using Trypan Blue dye exclusion and kept on ice until the proliferation assay is done. (b) The aliquot of cells not used for CD3⁺ cell (T cell) depletion is split in half and

positively selected for CD4 T cells and CD8 T cells using magnetic cell sorting. One half of the cells are incubated on ice with magnetic beads that are conjugated with anti-human CD4 monoclonal antibody. The other aliquot is incubated with magnetic beads that are conjugated with anti-human CD8 monoclonal antibody. The incubations are done on ice for 45 minutes. One tube (the anti-CD4 tube) is put in the field of a Becton-Dickinson Imag magnet, and the cells to which the antibody-coated magnetic beads have bound will bind to the side of the side of the tube having the magnet. The supernatant containing the cells not bearing the marker to which the antibody binds is removed by pipetting. New medium is carefully added to the tube and the supernatant removed again. After the non-bound cells are removed, the magnet will be removed and the anti-CD4 antibody-conjugated magnetic bead-bound cells are released from the side of the tube. Those CD4 T cells are removed by pipetting, washed by centrifugation in medium, and counted for viability by Trypan Blue dye exclusion. The same separation procedure is done to obtain CD8 T cells using anti-human CD8 monoclonal antibody-conjugated magnetic beads. The two populations of T cells are diluted to 5×10^6 viable cells/ml.